

### AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

### LISTING OF CLAIMS:

Claims 1 to 12. (Canceled).

13. (Previously Presented) An optical liquid crystal modulator, comprising:

at least one ferroelectric liquid crystal, wherein the at least one ferroelectric liquid crystal has a DHF mode and, at a location of the at least one ferroelectric liquid crystal, exhibits an operating range of an electric field of more than  $20 \text{ V}/\mu\text{m}$ .

14. (Previously Presented) The optical liquid crystal modulator according to claim 13, wherein:

the liquid crystal modulator is configured as at least one  $\lambda/2$  magnification plate which rotates in an electric field, and a single pass through the at least one  $\lambda/2$  magnification plate produces at least one tilt angle of  $\pm 22.5$  degrees in the at least one  $\lambda/2$  magnification plates.

Claim 15. (Canceled).

16. (Currently Amended) ~~The~~ An optical liquid crystal modulator ~~according to claim 13,~~ comprising:

at least one ferroelectric liquid crystal, wherein the at least one ferroelectric liquid crystal has a DHF mode and, at a location of the at least one ferroelectric liquid crystal, exhibits an operating range of an electric field of more than  $20 \text{ V}/\mu\text{m}$ , wherein: at a temperature of about  $20.0^\circ \text{ C}$ , a helical pitch  $P_0$  is between about  $0.1$  to about  $0.5 \mu\text{m}$ .

17. (Currently Amended) ~~The~~ An optical liquid crystal modulator ~~according to claim 13,~~ comprising:

at least one ferroelectric liquid crystal, wherein the at least one ferroelectric liquid crystal has a DHF mode and, at a location of the at least one ferroelectric liquid crystal, exhibits an operating range of an electric field of more than  $20 \text{ V}/\mu\text{m}$ , wherein: at a temperature of about  $20.0^\circ \text{ C}$ , a helical pitch  $P_0$  is about  $0.22 \mu\text{m}$ .

18. (Previously Presented) The optical liquid crystal modulator according to claim 13, further comprising:

a driving voltage of the liquid crystal modulator, wherein a driving frequency of the driving voltage is at least 10 kHz.

19. (Previously Presented) The optical liquid crystal modulator according to claim 13, further comprising:

a driving voltage of the liquid crystal modulator, wherein a driving frequency of the driving voltage is greater than about 50 kHz.

20. (Previously Presented) A method for operating an optical liquid crystal modulator having a ferroelectric liquid crystal, comprising:

operating the optical liquid crystal modulator at a location of the ferroelectric liquid crystal in an operating range of an electric field of greater than  $20 \text{ V}/\mu\text{m}$ ,

wherein the ferroelectric liquid crystal has a DHF mode.

21. (Previously Presented) The method for operating an optical liquid crystal modulator according to claim 20, wherein:

the ferroelectric liquid crystal is employed as at least one  $\lambda/2$  magnification plate which rotates in an electric field and wherein in response to a single pass through the at least one  $\lambda/2$  magnification plate a tilt angle of  $\pm 22.5$  degrees is produced in the at least one  $\lambda/2$  magnification plate.

Claim 22. (Canceled).

23. (Currently Amended) ~~The A~~ method for operating an optical liquid crystal modulator having a ferroelectric liquid crystal, comprising: according to claim 20,

operating the optical liquid crystal modulator at a location of the ferroelectric liquid crystal in an operating range of an electric field of greater than  $20 \text{ V}/\mu\text{m}$ ,

wherein the ferroelectric liquid crystal has a DHF mode and wherein: the ferroelectric liquid crystal has a helical pitch  $P_0$  of about 0.1 to 0.5 at a temperature of about  $20.0^\circ \text{ C}$ .

24. (Currently Amended) ~~The~~ A method for operating an optical liquid crystal modulator according to claim 20, having a ferroelectric liquid crystal, comprising:

operating the optical liquid crystal modulator at a location of the ferroelectric liquid crystal in an operating range of an electric field of greater than 20 V/ $\mu$ m,

wherein the ferroelectric liquid crystal has a DHF mode and wherein the ferroelectric liquid crystal has a helical pitch  $P_0$  of about 0.22  $\mu$ m at a temperature of about 20.0° C.

25. (Previously Presented) The method for operating an optical liquid crystal modulator of claim 20, further comprising:

providing a driving frequency of a driving voltage of the optical liquid crystal modulator of at least 10 kHz.

26. (Previously Presented) The method for operating an optical liquid crystal modulator of claim 20, further comprising:

providing a driving frequency of a driving voltage of the optical liquid crystal modulator of greater than 50 kHz.